Appl. No.

10/511,458

Filed

October 13, 2004

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method for detecting a target nucleic acid having a target sequence in a sample, comprising the steps of:

- (a) mixing a first probe comprising a nucleic acid which has a specific region having a sequence complementary to the target sequence and a nonspecific region having a sequence that is not complementary to the target sequence of the target nucleic acid; a second probe comprising a nucleic acid which has a first region that is complementary to at least a portion of the nonspecific region of the first probe, a loop region that does not have a sequence complementary to the first probe, and a second region that is complementary to at least a portion of the specific region of the first probe which is complementary to the target sequence, the loop region being eapable of forming a loop when it is annealed with the first probe, wherein the nucleic acid of the second probe is labeled with a labeling material generating a signal by which formation of the loop can be detected; and a sample, under conditions in which the first probe and the second probe are annealed and the first probe and the target nucleic acid are annealed; and
- (b) detecting a change in the signal of the labeling material in the presence of the target, thereby detecting the target nucleic acid.
- 2. (Currently amended) A-The method according to claim 1, wherein the second region of the second probe is shorter than the specific region of the first probe.
- 3. (Currently amended) A-The method according to claim 1, wherein the labeling material comprises a fluorescent material and a quencher that quenches the a fluorescence of the fluorescent material when the quencher is near the fluorescent material, arranged so as to sandwich the loop region, with the fluorescence of the fluorescent material being quenched by the quencher when the first probe and the second probe are annealed to form the loop and not quenched when the first probe and the second probe are not annealed as compared when the probes are not annealed.
- 4. (Currently amended) A-The method according to claim 1, wherein the detection of the change in the signal is performed quantitatively, thereby quantifying the target nucleic acid.

Appl. No.

10/511,458

Filed

.

October 13, 2004

5. (Currently amended) A kit for detecting a target nucleic acid having a target sequence in a sample, comprising:

a first probe comprising a nucleic acid which has a specific region having a sequence complementary to the target sequence and a nonspecific region having a sequence that is not complementary to the target sequence of the target nucleic acid; and

a second probe comprising a nucleic acid having a first region that is complementary to at least a portion of the nonspecific region of the first probe, a loop region that does not have a sequence complementary to the first probe, and a second region that is complementary to at least a portion of the specific region of the first probe which is complementary to the target sequence, the loop region being capable of forming a loop when it is annealed with the first probe, wherein the nucleic acid of the second probe is labeled with a labeling material generating a signal by which formation of the loop can be detected.